



State of Georgia
Department of Natural Resources
Environmental Protection Division
Air Protection Branch



Part 70 Operating Permit Amendment

Permit Amendment No.: 4911-033-0030-V-02-3

Effective Date: APR 09 2010

Facility Name: **Vogle Electric Generating Plant**
7821 River Road
Waynesboro, Georgia 30830, Burke County

Mailing Address: Southern Nuclear Operating Company
P.O. Box 1295 Bin B010
Birmingham, Alabama 35201

Parent/Holding Company: Georgia Power Company

Facility AIRS Number: 04-13-033-00030

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction permit for:

Construction of equipment to support new Units 3 and 4 including diesel engines, fuel oil tanks, and other support equipment.

This Permit Amendment shall also serve as a final amendment to the Part 70 Permit unless objected to by the U.S. EPA or withdrawn by the Division. The Division will issue a letter when this Operating Permit amendment is finalized.

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit Amendment and Permit No. 4911-033-0030-V-02-0. Unless modified or revoked, this Permit Amendment expires upon issuance of the next Part 70 Permit for this source.

This Permit Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 18986 dated May 22, 2009; any other applications upon which this Permit Amendment or Permit No. 4911-033-0030-V-02-0 are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Permit Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 15 pages, which pages are a part of this Permit Amendment, and which hereby become part of Permit No. 4911-033-0030-V-02-0.

Director
Environmental Protection Division

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PART 1.0 FACILITY DESCRIPTION**1.3 Process Description of Modification**

This permit modification is for the installation of new emission units associated with two new nuclear power generation units scheduled for construction on the existing Vogtle Electric Generating Plant site. The new emission units are supplemental equipment used in the operational and safety systems of the nuclear units. The electricity provided to the grid is exclusively provided by the nuclear power generating units. The existing emission units are not being modified.

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PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.1.1 Additional Emission Units

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
VD05	Unit 3 Standby Generator	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.7, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.1, 4.2.3, 4.2.4, 4.2.5, 5.2.2, 6.2.5, 6.2.6, 6.2.7	N/A	None
VD06	Unit 3 Standby Generator	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.7, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.1, 4.2.3, 4.2.4, 4.2.5, 5.2.2, 6.2.5, 6.2.6, 6.2.7	N/A	None
VD07	Unit 4 Standby Generator	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.7, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.1, 4.2.3, 4.2.4, 4.2.5, 5.2.2, 6.2.5, 6.2.6, 6.2.7	N/A	None
VD08	Unit 4 Standby Generator	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.7, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.1, 4.2.3, 4.2.4, 4.2.5, 5.2.2, 6.2.5, 6.2.6, 6.2.7	N/A	None
AUX1	Ancillary Generator for Units 3 and 4	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.8, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.2, 4.2.6, 5.2.3, 6.2.5, 6.2.6, 6.2.7	N/A	None
AUX2	Ancillary Generator for Units 3 and 4	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.8, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.2, 4.2.6, 5.2.3, 6.2.5, 6.2.6, 6.2.7	N/A	None
AUX3	Ancillary Generator for Units 3 and 4	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.8, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.2, 4.2.6, 5.2.3, 6.2.5, 6.2.6, 6.2.7	N/A	None
AUX4	Ancillary Generator for Units 3 and 4	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.8, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.2, 4.2.6, 5.2.3, 6.2.5, 6.2.6, 6.2.7	N/A	None
FPD3	Unit 3 & 4 Fire Pump	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.9, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.2, 4.2.6, 5.2.3, 6.2.5, 6.2.6, 6.2.7	N/A	None

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Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
FPD4	Unit 3 & 4 Fire Pump	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.9, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.2, 4.2.6, 5.2.3, 6.2.5, 6.2.6, 6.2.7	N/A	None
FPD5	Unit 3 & 4 Fire Pump	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.9, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.2, 4.2.6, 5.2.3, 6.2.5, 6.2.6, 6.2.7	N/A	None
ODG1	Raw Water System Diesel	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.7, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.1, 4.2.3, 4.2.4, 4.2.5, 5.2.2, 6.2.5, 6.2.6, 6.2.7	N/A	None
ODG2	Technical Support Center Diesel	391-3-1-.02(2) (b) and (g), 40 CFR 60 Subpart A, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart A, 40 CFR 63 Subpart ZZZZ	3.3.5, 3.3.6, 3.3.7, 3.3.10, 3.3.11, 3.3.12, 3.4.6, 4.2.1, 4.2.3, 4.2.4, 4.2.5, 5.2.2, 6.2.5, 6.2.6, 6.2.7	N/A	None
CWT1	Circulating Water System Cooling Tower	40 CFR 52.21	3.3.14	N/A	None
CWT2	Circulating Water System Cooling Tower	40 CFR 52.21	3.3.14	N/A	None
SWS1	Service Water System Cooling Tower	40 CFR 52.21	3.3.13	N/A	None
SWS2	Service Water System Cooling Tower	40 CFR 52.21	3.3.13	N/A	None

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.

3.3 Equipment Federal Rule Standards

3.3.5 The Permittee shall comply with all applicable provisions of the New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart A – “General Provisions,” and Subpart IIII – “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines,” for the operation of the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5).
[40 CFR 60 Subparts A and IIII]

3.3.6 The Permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as found in 40 CFR Part 63, in Subpart A – “General Provisions,” and Subpart ZZZZ – “National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines” for the operation of the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5).
[40 CFR 63 Subparts A and ZZZZ]

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- 3.3.7 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from the Standby Generators (Source Codes: VD05 through VD08) the RWS Standby Generator (Source Code: ODG1) and the TSC Standby Generator (Source Code: ODG2), any gases which:
[40 CFR 52.21, 40 CFR 63.6600(b) and Table 2a of 40 CFR 63 Subpart ZZZZ, and 40 CFR 60.4204(b) and Table 1 of 40 CFR 60 Subpart IIII (subsumed)]
- a. Contain volatile organic compounds (VOC) in excess of 0.33 grams per kilowatt-hour (0.24 grams per horsepower-hour).
 - b. Contain nitrogen oxides (NO_x) in excess of 1.60 grams per kilowatt-hour (1.2 grams per horsepower-hour).
 - c. Contain carbon monoxide (CO) in excess of 3.45 grams per kilowatt-hour (2.59 grams per horsepower-hour).
 - d. Contain particulate matter (PM) in excess of 0.15 grams per kilowatt-hour (0.11 grams per horsepower-hour).
 - e. Contain formaldehyde in excess of 580 parts per billion by volume on a dry basis (ppbvd), corrected to 15% oxygen.
- 3.3.8 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from the Ancillary Generators (Source Codes: AUX1 through AUX4), any gases which:
[40 CFR 52.21 and 40 CFR 60.4204(b) and Table 1 of 40 CFR 60 Subpart IIII (subsumed)]
- a. Contain volatile organic compounds (VOC) in excess of 0.75 grams per kilowatt-hour (0.56 grams per horsepower-hour).
 - b. Contain nitrogen oxides (NO_x) in excess of 7.50 grams per kilowatt-hour (5.63 grams per horsepower-hour).
 - c. Contain carbon monoxide (CO) in excess of 5.00 grams per kilowatt-hour (3.75 grams per horsepower-hour).
 - d. Contain particulate matter (PM) in excess of 0.40 grams per kilowatt-hour (0.30 grams per horsepower-hour).

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- 3.3.9 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from the Emergency Fire Pumps (Source Codes: FPD3 through FPD5), any gases which:
[40 CFR 52.21 and 40 CFR 60.4204(b) and Table 1 of 40 CFR 60 Subpart IIII (subsumed)]
- Contain volatile organic compounds (VOC) in excess of 0.32 grams per kilowatt-hour (0.24 grams per horsepower-hour).
 - Contain nitrogen oxides (NO_x) in excess of 3.25 grams per kilowatt-hour (2.44 grams per horsepower-hour).
 - Contain carbon monoxide (CO) in excess of 1.44 grams per kilowatt-hour (1.08 grams per horsepower-hour).
 - Contain particulate matter (PM) in excess of 0.15 grams per kilowatt-hour (0.11 grams per horsepower-hour).
- 3.3.10 The Permittee shall operate the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5) with diesel fuel that has a maximum sulfur content of 15 parts per million (ppm) (0.0015% by weight) and either a minimum cetane index of 40 or maximum aromatic content of 35 volume percent.
[40 CFR 60.4207 (a) and (b) and 391-3-1-.02(2)(g) (subsumed)]
- 3.3.11 The Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5) shall each be installed and configured according to the specifications and instructions provided by the manufacturers.
[40 CFR 60.4211(c)]
- 3.3.12 The Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5) shall each be operated and maintained according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the generator manufacturer. The Permittee may only change those settings that are permitted by the manufacturer.
[40 CFR 60.4211(a)]
- 3.3.13 The Permittee shall construct and operate the Service Water System Cooling Towers (Source Codes: SWS1 and SWS2) with a Drift Loss Rate of 0.005% or less.
[40 CFR 52.21]
- 3.3.14 The Permittee shall construct and operate the Circulating Water Cooling Towers (Source Codes: CWT1 and CWT2) with a Drift Loss Rate of 0.0005% or less.
[40 CFR 52.21]

- 3.3.15 The Permittee shall commence construction within 18 months of the effective date of the final construction permit. In the event construction is not commenced within that 18 months, is discontinued for a period of 18 months or more, or is not completed within a reasonable time, and absent approval by the Division for an extension, approval to construct the equipment shall become null and void. For purposes of this Permit, the definition of the term "commence" is provided at 40 CFR 52.21(b)(9).
[40 CFR 52.21(r)]
- 3.3.16 The Permittee shall ensure emissions of PM_{2.5} from the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5), combined are less than 9.48 tons per 12-consecutive months.
[Avoidance of 40 CFR 52.21]

3.4 Equipment SIP Rule Standards

- 3.4.6 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from The Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5), any gases which exhibit visible emissions, the opacity of which is equal to or greater than 40 percent.
[391-3-1-.02(2)(b)1.]

PART 4.0 REQUIREMENTS FOR TESTING**4.1 General Testing Requirements****MODIFIED CONDITION**

4.1.3 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Sections 3.2, 3.3, 3.4 and 3.5 which pertain to the emission units listed in Section 3.1 are as follows:

- a. Method 1 shall be used for the determination of sample point locations.
- b. Method 2 shall be used for the determination of stack gas flow rate.
- c. Method 3 or 3A shall be used for the determination of stack gas molecular weight.
- d. Method 3B shall be used for the determination of the emissions rate correction factor or excess air. Method 3A may be used as an alternative to Method 3B.
- e. Method 4 shall be used for the determination of stack gas moisture.
- f. Method 5 shall be used for the determination of Particulate Matter concentration.
- g. Method 9 and the procedures contained in Section 1.3 of the above reference document shall be used for the determination of opacity.
- h. Method 19 shall be used, when applicable, to convert particulate matter, carbon monoxide, and nitrogen oxide concentrations (i.e., grains/dscf for PM and ppm for gaseous pollutants), as determined using methods specified in this section, to emission rates (i.e., lb/MMBtu).
- i. ASTM D4057 shall be used for the collection of fuel oil samples.
- j. Method 19, Section 12.5.2.2.3, shall be used for the determination of fuel oil sulfur content.
- k. Method 7E shall be used for the determination of nitrogen oxides (NO_x) concentration.
- l. Method 10 shall be used for the determination of carbon monoxide concentration.
- m. Method 25A shall be used for the determination of volatile organic compounds (VOC) concentration.
- n. Method 320 shall be used for the determination of formaldehyde concentration.

- o. Method 5T shall be used for the determination of particulate matter concentration from diesel-fired engines for emission limits specified in Conditions 3.3.7, 3.3.8, and 3.3.9.

Minor changes in methodology may be specified or approved by the Director or his designee when necessitated by process variables, changes in facility design, or improvement or corrections that, in his opinion, render those methods or procedures, or portions thereof, more reliable.

[391-3-1-.02(3)(a)]

4.2 Specific Testing Requirements

- 4.2.1 Within 180 days after startup of the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), or the TSC Standby Generator (Source Code: ODG2), the Permittee shall conduct initial performance tests for the following pollutants:

[391-3-1-.02(6)(b)1.(i), 40 CFR 52.21, 40 CFR 60.4213, and 40 CFR 63.6610(a)]

- a. Volatile organic compounds (VOC)
- b. Nitrogen oxides (NOx)
- c. Carbon monoxide (CO)
- d. Particulate matter (PM)
- e. Formaldehyde

- 4.2.2 Within 180 days after startup of the Ancillary Generators (Source Codes: AUX1 through AUX4) and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5), the Permittee shall conduct initial performance tests for the following pollutants:

[391-3-1-.02(6)(b)1.(i) and 40 CFR 52.21]

- a. Volatile organic compounds (VOC)
- b. Nitrogen oxides (NOx)
- c. Carbon monoxide (CO)
- d. Particulate matter (PM)

- 4.2.3 Following the initial performance test for formaldehyde required by Condition 4.2.1, the Permittee shall conduct subsequent performance tests for formaldehyde on the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), and the TSC Standby Generator (Source Code: ODG2) semiannually. After two consecutive performance tests are in compliance, the testing frequency for subsequent performance tests may be reduced to annually. If the results of any subsequent annual performance test indicate the engine is not in compliance with the formaldehyde emission limitation in Condition 3.3.7(e), or any deviations from any of the operating limitations occur, the testing frequency returns to semiannual performance tests.
[391-3-1-.02(6)(b)1.(i), 40 CFR 63.6615, and Table 3 of 40 CFR 63 Subpart ZZZZ]
- 4.2.4 Following the initial performance test for VOC, NO_x, CO, and PM required by Condition 4.2.1, the Permittee shall conduct subsequent performance tests for VOC, NO_x, CO, and PM on the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), and the TSC Standby Generator (Source Code: ODG2) annually.
[391-3-1-.02(6)(b)1.(i) and 40 CFR 60.4211(d)(3)]
- 4.2.5 During the initial performance tests required by Condition 4.2.1, the Permittee shall establish the limits for each operating parameter in the monitoring plan required by Condition 5.2.2. The Permittee shall include these limits in the initial test report for the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), or the TSC Standby Generator (Source Code: ODG2).
[391-3-1-.02(6)(b)1.(i), 40 CFR 52.21, 40 CFR 60.4211(d)(1) and 40 CFR 63.6630]
- 4.2.6 During the initial performance tests required by Condition 4.2.2, the Permittee shall establish the limits for each operating parameter in the monitoring plan required by Condition 5.2.3. The Permittee shall include these limits in the initial test report for the Ancillary Generators (Source Codes: AUX1 through AUX4) and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5).
[391-3-1-.02(6)(b)1.(i) and 40 CFR 52.21]

PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)**5.1 General Monitoring Requirements**

- 5.1.1 Any continuous monitoring system required by the Division and installed by the Permittee shall be in continuous operation and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Monitoring system response, relating only to calibration checks and zero and span adjustments, shall be measured and recorded during such periods. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service.
[391-3-1-.02(6)(b)1]

5.2 Specific Monitoring Requirements

- 5.2.2 Before the performance tests required by Condition 4.2.1 are conducted, the Permittee shall submit an engine monitoring plan for the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), and the TSC Standby Generator (Source Code: ODG2) to the Division for approval. The monitoring plan shall include the operating parameters to be monitored continuously and shall include the following:
[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i), 40 CFR 60.4211(d)(2), and 40 CFR 63.6620 (f) and (g)]
- a. Identification of the specific parameters to be monitored continuously.
 - b. A discussion of the relationship between these parameters and NO_x, PM, CO, VOC, and HAP emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on the ranges of these parameters will serve to limit NO_x, PM, CO, VOC, and HAP emissions.
 - c. A discussion of how the upper and/or lower values for these parameters will be established.
 - d. A discussion identifying the methods and instruments necessary to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.
 - e. A discussion identifying the frequency and methods for recalibrating the instruments necessary for monitoring these parameters.

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- 5.2.3 Before the performance tests required by Condition 4.2.2 are conducted, the Permittee shall submit an engine monitoring plan for the Ancillary Generators (Source Codes: AUX1 through AUX4) and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5) to the Division for approval. The monitoring plan shall include the operating parameters to be monitored continuously and shall include the following:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]
- a. Identification of the specific parameters to be monitored continuously.
 - b. A discussion of the relationship between these parameters and NO_x, PM, CO, and VOC emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on the ranges of these parameters will serve to limit NO_x, PM, CO, and VOC emissions.
 - c. A discussion of how the upper and/or lower values for these parameters will be established.
 - d. A discussion identifying the methods and instruments necessary to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.
 - e. A discussion identifying the frequency and methods for recalibrating the instruments necessary for monitoring these parameters.
- 5.2.4 The Permittee shall determine and record the total dissolved solids (TDS) content of the cooling water in the Circulating Water Cooling Towers (Source Codes: CWT1 and CWT2) using the following schedule. The determination of TDS shall be made using Standard Methods SM2540C, a TDS or conductivity meter, or another method approved in advance by the Division.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]
- a. Measurements shall be made once each calendar quarter until four consecutive quarterly measurements are each less than 3,600 mg/L.
 - b. After four consecutive quarterly measurements are each less than 3,600 mg/L, measurements shall be made once each semiannual period until two consecutive semiannual measurements are each less than 3,600 mg/L.
 - c. After two consecutive semiannual measurements are each less than 3,600 mg/L, measurements shall be made once every two years (approximately 24 months apart).
- 5.2.5 The Permittee shall install a non-resettable hour meter on the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5) and record the number of hours of operation for each diesel-fired engine each calendar month.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS**6.1 General Record Keeping and Reporting Requirements**

6.1.9 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:

[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

- a. Excess emissions: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

None required to be reported in accordance with Condition 6.1.4.

- b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)

- i. Any parameter identified in the monitoring plan required by Condition 5.2.2 that is outside the range established in accordance with Condition 4.2.5, for any 4-hour block average.

- ii. Any parameter identified in the monitoring plan required by Condition 5.2.3 that is outside the range established in accordance with Condition 4.2.6, for any 4-hour block average.

- iii. Any 12-consecutive month PM_{2.5} emissions determined in accordance with Condition 6.2.9 that equals or exceeds 9.48 tons.

- c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)

- i. Any measurement of TDS required by Condition 5.2.4 that exceeds 4,800 mg/L.

6.2 Specific Record Keeping and Reporting Requirements

6.2.5 The Permittee shall notify the Division of the date construction is commenced on the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5) postmarked no later than 30 days after such date. The notification shall include the following:
[40 CFR 60.7(a)(1), 40 CFR 60.4214(a)(1), and 40 CFR 63.6645]

- a. Name and address of the owner or operator.
- b. The address of the affected source.
- c. Generator information including make, model, engine family, serial number, model year, maximum generator power, and engine displacement.
- d. Emission control equipment.
- e. Fuel used.

6.2.6 The Permittee shall keep records of the following.
[40 CFR 60.4214(a)(2)]

- a. All notifications submitted to comply with 40 CFR 60 Subpart IIII and this permit and all documentation supporting any notification.
- b. Maintenance conducted on the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5).
- c. Documentation from the generator manufacturer that the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5) are certified to meet the emission standards of 40 CFR 60 Subpart IIII. The generator manufacturer certifications shall be kept for the life of the generators.

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- 6.2.7 The Permittee shall furnish the Division a written notification that indicates the actual date of initial startup of the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5) within 15 days after such date.
[40 CFR 60.7(a)(3)]
- 6.2.8 The Permittee shall use the operating time for the Standby Generators (Source Codes: VD05 through VD08), the RWS Standby Generator (Source Code: ODG1), the TSC Standby Generator (Source Code: ODG2), the Ancillary Generators (Source Codes: AUX1 through AUX4), and the Emergency Fire Pumps (Source Codes: FPD3 through FPD5) recorded in accordance with Condition 5.2.5, the rated capacity for each engine (in kW), and the emission limits for particulate matter in Conditions 3.3.7, 3.3.8, and 3.3.9 to calculate the PM_{2.5} emissions for each calendar month using the following equation:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

$$\text{Monthly PM}_{2.5} \text{ Emissions} = \frac{\sum_{i=1}^{13} (EL_i)(Hr_i)(RC_i)}{(453.6)(2000)}$$

Where:

EL_i = The PM limit from Condition 3.3.7, 3.3.8, or 3.3.9, as applicable, for the i th engine (g/kW-hr).

Hr_i = The total operating hours for the i th engine (hr).

RC_i = The Rated Capacity of the i th engine from engine manufacturer (kW).

i = Diesel-fired engine (13 total).

453.6 = Conversion factor for grams to pounds.

2000 = Conversion factor for pounds to tons.

- 6.2.9 The Permittee shall use the monthly PM_{2.5} emissions determined in Condition 6.2.8 to calculate the 12-consecutive month total PM_{2.5} emissions for each calendar month. All the calculations shall be kept as part of the records required in Condition 6.2.8. The Permittee shall notify the Division in writing within 15 days if any 12-consecutive month total PM_{2.5} emissions equals or exceeds 9.48 tons. This notification shall include an explanation of how the Permittee intends to attain future compliance with Condition 3.3.16. A 12-consecutive month total shall be defined as the sum of a calendar month's total plus the totals for the previous eleven (11) consecutive months.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

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Attachments

- A. List of Standard Abbreviations and List of Permit Specific Abbreviations
- B. Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups
- C. List of References

List Of Standard Abbreviations

[illegible]

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Vogtle Electric Generating Plant

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ATTACHMENT B

NOTE: Attachment B contains information regarding insignificant emission units/activities and groups of generic emission units/activities in existence at the facility at the time of Permit issuance. Future modifications or additions of insignificant emission units/activities and equipment that are part of generic emissions groups may not necessarily cause this attachment to be updated.

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Mobile Sources	1. Cleaning and sweeping of streets and paved surfaces	1
Combustion Equipment	1. Fire fighting and similar safety equipment used to train fire fighters or other emergency personnel.	1
	2. Small incinerators that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act and are not considered a "designated facility" as specified in 40 CFR 60.32e of the Federal emissions guidelines for Hospital/Medical/Infectious Waste Incinerators, that are operating as follows:	
	i) Less than 8 million BTU/hr heat input, firing types 0, 1, 2, and/or 3 waste.	
	ii) Less than 8 million BTU/hr heat input with no more than 10% pathological (type 4) waste by weight combined with types 0, 1, 2, and/or 3 waste.	
	iii) Less than 4 million BTU/hr heat input firing type 4 waste. (Refer to 391-3-1-.03(10)(g)2.(ii) for descriptions of waste types)	1
	3. Open burning in compliance with Georgia Rule 391-3-1-.02 (5).	1
	4. Stationary engines burning:	
	i) Natural gas, LPG, gasoline, dual fuel, or diesel fuel which are used exclusively as emergency generators;	
	ii) Natural gas, LPG, and/or diesel fueled generators used for emergency, peaking, and/or standby power generation, where the combined peaking and standby power generation do not exceed 200 hours per year.	
	iii) Natural gas, LPG, and/or diesel fuel used for other purposes, provided that the output of each engine does not exceed 400 horsepower and that no individual engine operates for more than 2,000 hours per year.	
	iv) Gasoline used for other purposes, provided that the output of each engine does not exceed 100 horsepower and that no individual engine operates for more than 500 hours per year.	
Trade Operations	1. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities whose emissions of hazardous air pollutants (HAPs) fall below 1,000 pounds per year.	2
Maintenance, Cleaning, and Housekeeping	1. Blast-cleaning equipment using a suspension of abrasive in water and any exhaust system (or collector) serving them exclusively.	
	2. Portable blast-cleaning equipment.	2
	3. Non-Perchloroethylene Dry-cleaning equipment with a capacity of 100 pounds per hour or less of clothes.	
	4. Cold cleaners having an air/vapor interface of not more than 10 square feet and that do not use a halogenated solvent.	6
	5. Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissioning.	
	6. Devices used exclusively for cleaning metal parts or surfaces by burning off residual amounts of paint, varnish, or other foreign material, provided that such devices are equipped with afterburners.	
	7. Cleaning operations: Alkaline phosphate cleaners and associated cleaners and burners.	

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INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Laboratories and Testing	1. Laboratory fume hoods and vents associated with bench-scale laboratory equipment used for physical or chemical analysis.	25
	2. Research and development facilities, quality control testing facilities and/or small pilot projects, where combined daily emissions from all operations are not individually major or are support facilities not making significant contributions to the product of a collocated major manufacturing facility.	
Pollution Control	1. Sanitary waste water collection and treatment systems, except incineration equipment or equipment subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act..	2
	2. On site soil or groundwater decontamination units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	3. Bioremediation operations units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	4. Landfills that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	1
Industrial Operations	1. Concrete block and brick plants, concrete products plants, and ready mix concrete plants producing less than 125,000 tons per year.	
	2. Any of the following processes or process equipment which are electrically heated or which fire natural gas, LPG or distillate fuel oil at a maximum total heat input rate of not more than 5 million BTU's per hour:	
	i) Furnaces for heat treating glass or metals, the use of which do not involve molten materials or oil-coated parts.	
	ii) Porcelain enameling furnaces or porcelain enameling drying ovens.	
	iii) Kilns for firing ceramic ware.	
	iv) Crucible furnaces, pot furnaces, or induction melting and holding furnaces with a capacity of 1,000 pounds or less each, in which sweating or distilling is not conducted and in which fluxing is not conducted utilizing free chlorine, chloride or fluoride derivatives, or ammonium compounds.	
	v) Bakery ovens and confection cookers.	
	3. Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, shot blasting, shot peening, or polishing; ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock or wood, also including roll grinding and ground wood pulping stone sharpening, provided that:	20
	i) Activity is performed indoors; &	
	ii) No significant fugitive particulate emissions enter the environment; &	
	iii) No visible emissions enter the outdoor atmosphere.	
	4. Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy (e.g., blueprint activity, photographic developing and microfiche).	
	5. Grain, food, or mineral extrusion processes	
	6. Equipment used exclusively for sintering of glass or metals, but not including equipment used for sintering metal-bearing ores, metal scale, clay, fly ash, or metal compounds.	
	7. Equipment for the mining and screening of uncrushed native sand and gravel.	
	8. Ozonization process or process equipment.	
	9. Electrostatic powder coating booths with an appropriately designed and operated particulate control system.	
	10. Activities involving the application of hot melt adhesives where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	
	11. Equipment used exclusively for the mixing and blending water-based adhesives and coatings at ambient temperatures.	
	12. Equipment used for compression, molding and injection of plastics where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	
	13. Ultraviolet curing processes where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	

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INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Storage Tanks and Equipment	1. All petroleum liquid storage tanks storing a liquid with a true vapor pressure of equal to or less than 0.50 psia as stored.	26
	2. All petroleum liquid storage tanks with a capacity of less than 40,000 gallons storing a liquid with a true vapor pressure of equal to or less than 2.0 psia as stored that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	3
	3. All petroleum liquid storage tanks with a capacity of less than 10,000 gallons storing a petroleum liquid.	22
	4. All pressurized vessels designed to operate in excess of 30 psig storing petroleum fuels that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	5. Gasoline storage and handling equipment at loading facilities handling less than 20,000 gallons per day or at vehicle dispensing facilities that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	1
	6. Portable drums, barrels, and totes provided that the volume of each container does not exceed 550 gallons.	50
	7. All chemical storage tanks used to store a chemical with a true vapor pressure of less than or equal to 10 millimeters of mercury (0.19 psia).	4

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities	Quantity
Cooling Towers	2

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ATTACHMENT B (continued)**GENERIC EMISSION GROUPS**

Emission units/activities appearing in the following table are subject only to one or more of Georgia Rules 391-3-1-.02 (2) (b), (e) &/or (n). Potential emissions of particulate matter, from these sources based on TSP, are less than 25 tons per year per process line or unit in each group. Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Emissions Units / Activities	Number of Units (if appropriate)	Applicable Rules		
		Opacity Rule (b)	PM from Mfg Process Rule (e)	Fugitive Dust Rule (n)
N/A	0			

The following table includes groups of fuel burning equipment subject only to Georgia Rules 391-3-1-.02 (2) (b) & (d). Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Fuel Burning Equipment	Number of Units
Fuel burning equipment with a rated heat input capacity of less than 10 million BTU/hr burning only natural gas and/or LPG.	0
Fuel burning equipment with a rated heat input capacity of less than 5 million BTU/hr, burning only distillate fuel oil, natural gas and/or LPG.	0
Any fuel burning equipment with a rated heat input capacity of 1 million BTU/hr or less.	0

ATTACHMENT C

LIST OF REFERENCES

1. The Georgia Rules for Air Quality Control Chapter 391-3-1. All Rules cited herein which begin with 391-3-1 are State Air Quality Rules.
2. Title 40 of the Code of Federal Regulations; specifically 40 CFR Parts 50, 51, 52, 60, 61, 63, 64, 68, 70, 72, 73, 75, 76 and 82. All rules cited with these parts are Federal Air Quality Rules.
3. *Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Testing and Monitoring Sources of Air Pollutants.*
4. *Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Calculating Air Permit Fees.*
5. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources. This information may be obtained from EPA's TTN web site at www.epa.gov/ttn/chief/ap42/index.html.
6. The latest properly functioning version of EPA's **TANKS** emission estimation software. The software may be obtained from EPA's TTN web site at www.epa.gov/ttn/chief/software/tanks/index.html.
7. The Clean Air Act (42 U.S.C. 7401 et seq).
8. White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995 (White Paper #1).
9. White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, March 5, 1996 (White Paper #2).